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Visibility and facticity in policy diffusion: going beyond the prevailing binarity

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Abstract Quantitative-oriented diffusion studies, either focused on diffusion patterns or mechanisms, take for granted that policy adoptions are manifest and therefore directly observable in the legislation. A more nuanced perspective of policy adoption taking into account gradual differences between adoption and non-adoption is proposed with this paper, valid for diffusion among communities and states in federal settings and among countries on the global level. Besides the aspect of visibility, intentions are also important when measures are adopted. While some measures are transferred with a clear instrumental aim, others are rather transferred for symbolical reasons. Looking at specific processes, the paper proposes a concept that disentangles the current understanding of policy diffusion and provides empirical evidence that current diffusion research misconceives instances. The four different transfer types are illustrated with empirical evidence from sub-national energy policy-making in Switzerland. The systematic investigation of the cases allows to finding explanations for the different transfer types.

Keywords Policy diffusion · Transfer · Binarity · Visibility · Facticity

That countries as well as sub-national units develop policy measures not totally independent from each other was underestimated in the analysis of policy-making for a long time. The diffusion of public policies was studied in the late 1960s and beyond by Walker (1969) and Gray (1973) and explored in the setting of the United States (US). The groundwork was laid by Rogers (2003) with his seminal work on the diffusion of innovations in different areas that was published in the first edition in 1962. Since then, policy diffusion has increasingly gained attention on several levels in various fields of policy analysis. Scholars have accumulated evidence of different diffusion channels, while recently, the study of the mechanisms behind such processes dominated the research agenda (Berry and Berry 2007). These state-of-the art studies proclaim that an adoption of a measure is based, for example, on a learning process or on competitive conditions.

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This paper takes a deeper look at specific transfer types of policy measures that can be the basis for diffusion. The aim is to point out some shortcomings in diffusion research that might bias the results. Depending on the types of transfer that take place in a policy field, the effect of diffusion is over- or underestimated. To present undistorted pictures of policy diffusion, a more differentiated understanding is proposed. Therefore, this paper contributes to policy-diffusion theory and provides new starting points for further research.

First, different approaches of interdependent policy-making and the limitations of the common utilization of these approaches will be discussed and highlighted. Based on this, a framework that introduces four different transfer types in two dimensions is presented. This approach goes beyond the prevailing binary understanding of the simple presence or absence of a transfer as it is used in quantitative policy-diffusion studies. With the help of evidence from sub-national energy policy-making in Switzerland, the empirical relevance of this framework is discussed. Considering the detailed findings from 18 case studies of transfer processes in six Swiss cantons, the impact on the effect of diffusion is deduced, and a hypothesis that explains these different types is generated. Since the focus of this paper is set on the elaborated theoretical concept, only a selection of the cases is discussed in detail.

Policy diffusion and its limits

Scholars increasingly study the interdependence of policy-making between units, taking different approaches when studying this phenomenon of interdependence. These approaches include policy diffusion, policy transfer, policy convergence, isomorphism, etc. Although they all look at the interdependence of policy-making, different focuses are taken. The demarcation between the approaches is often not uniform. Political scientists such as Newmark (2002) and Evans (2009) see policy transfer as part of the concept of diffusion. Stone (1999) argues that the two concepts are distinct types of policy learning, while Holzinger et al. (2007) see the concept of convergence as a starting point for policy transfer as well as diffusion. In order to tackle this paper's aim, the approaches of diffusion and transfer are discussed with special attention paid to the question of how policies are transferred from one unit to another.

The perspective of policy diffusion has the aim to work out the relevant structures that foster the diffusion of policies. Different patterns of diffusion among units and the supporting institutions in federal as well as cross-country settings are shown. Several studies have been cross-national with the intention to investigate whether countries develop new measures independently or how much such measures diffused across countries (e.g., Gilardi 2010; Simmons and Elkins 2004; Weyland 2006). The vast majority of research on policy diffusion focused policy-making in US states (Berry and Berry 1990; Mintrom and Vergari 1998; Volden 2006; Shipan and Volden 2008). Only a small number of studies took a closer look at possible diffusion patterns in other sub-national settings such as Brazil (Sugiyama 2008), Japan (Ito 2001), or Switzerland (Füglister 2012; Widmer and Rieder 2003; Strebel 2011; Kübler and Widmer 2007). Recent studies substantiated these processes with concrete underlying mechanisms such as learning, emulation, competition, and coercion (Dobbin et al. 2007; Braun and Gilardi 2006; Shipan and Volden 2008), and learning, especially, received much attention (Gilardi 2010; Gilardi et al. 2009; Weyland 2006; Meseguer 2006). New methodological approaches such as the dyadic-year event history analysis allow for a more fine-grained analysis of diffusion process, especially for carving out diffusion mechanisms (see e.g.: Volden 2006; Gilardi and Füglister 2008).

The large majority of diffusion studies are quantitatively oriented. Event history analysis (EHA) is the model of choice in diffusion studies. Looking at the unit of analysis, one can find either adoption or non-adoption of a measure in a state for a given year (Berry and Berry 2007). This binarity takes for granted that adoptions are manifest and therefore directly observable in the legislation. A process that ends with the adoption of a measure different from the one under observation but with the same underlying idea is therefore neglected in such an analysis. Also ignored is the aspect of the so-called label diffusion or the possibility of symbolic imitation. Label diffusion circumscribes the situation where the same label is adopted in several units but ascribed different content (Mossberger 2000). In the case of symbolic imitation, measures are adopted not to solve problems, but as ceremonies to show that the appropriate and expected measures have been introduced (Edelman 1985). A more nuanced picture between full adoption and non-adoption is needed for the understanding of such processes.

Aiming for a finer-grained approach, this study looks at the specific processes. Studies on policy transfer, in contrast to diffusion studies, examine concrete processes where knowledge about policies, administrative arrangements, and institutions is used in the development of policies in another time, place, or both (Dolowitz and Marsh 2000). Transfers, therefore, represent the basis for what might lead to diffusion if they systematically appear. Most research has been conducted with single-case studies in the framework of the European Union (EU; e.g., Bulmer 2007) and in the United Kingdom (UK; e.g., Stone 2004). Besides policies, several other objects are addressed such as ideologies, ideas, or negative lessons (Stone 1999). Compared to the research on diffusion, policy transfer puts a stronger focus on processes, usually through single-case studies. Some transfer studies and especially the approach of lesson drawing proposed by Rose (1993), however, identify different types of transfer. Rose (1993) proposes the following: copying, emulation, hybridization, synthesis, and inspiration. While *copying* stands for the adoption of a complete measure, *inspiration* means the use of an intellectual stimulus for developing a novel program. The different types on this continuum differ in the aspect of visibility: while a copied policy is clearly recognizable in the legislation, the source of inspiration behind a new measure is rather difficult to disentangle. Studies in the tradition of policy transfer usually trace one concrete transfer process and are hardly discussed in a comparative perspective. This precludes broader generalization.

This paper contributes to the literature of interdependent policy-making. A pattern of diffusion is composed of several transfers. This paper focuses on the concrete transfers of measures from one unit to another and on those different transfer types. Therefore, *transfer* is used to reference such ideas in the following sections.

A concept is proposed that disentangles the current understanding of the policy-transfer concept. While some measures are transferred with a clear instrumental aim, others are rather transferred for symbolical reasons or are not transferred at all and, therefore, are not factual. No attention is paid to this aspect in the literature of interdependent policy-making and is, therefore, integrated in the model. In a first step, the theoretical conception of distinct transfer types in two dimensions is presented. After a discussion of these types in the light of cantonal energy policy in Switzerland, this paper addressed the question of how these different concepts can be explained and what the conditions for its occurrence are.

Theoretical concepts

Transfers can vary in terms of not only visibility but also facticity. Visibility of a transfer occurs when an adoption is clearly recognizable in the legislation. A clear and public act of

Table 1 Transfer types

Facticity	Visibility	
	Yes	No
Yes	Type I: Instrumental transfer	Type II: Conceptual transfer
No	Type III: Symbolic transfer	Type IV: Negative transfer

adoption is, therefore, needed. This can be the case with the adoption of a law by the legislature, as well as with the enactment of an ordinance by the government. Facticity is defined as an actual, tangible, and demonstrable fact (see also Habermas 1992). For the dimension of facticity, it is not relevant whether a measure is exactly copied or just the idea is adopted. Of importance is the point that the underlying rationale—what makes the transfer factual—is transferred. No facticity prevails when a transfer happens only on paper or does not take place at all. The following visualization in Table 1 brings together these aspects of transfer visibility and facticity.

In order to explain these four fields, the work of authors from the field of evaluation and research utilization (Weiss 1979; Widmer and Neuenschwander 2004; Amara et al. 2004; Vedung 1997; Patton 2008) will be employed. A clear distinction has to be made between this classification and the mechanisms of policy diffusion. The concept of the mechanisms concentrates on the underlying drivers. In this, understanding the mechanism represents the causal variable triggering diffusion. While studies focusing diffusion mechanisms ask why policies are adopted, the proposed model explains how concrete transfers take place with the help of the two dimensions. Different mechanisms, however, might be responsible for the systematic appearance of certain transfer types.

Instrumental transfers, which are implicitly taken as standard in most diffusion studies, are first addressed.

Type I: Instrumental transfer

Knowledge from different areas and units of the state can be used as a means in goal-oriented problem-solving processes. On the existence of a problem where information is missing, to generate solutions, ideas from other units are used (based on Weiss 1979). This use of knowledge in a problem-centered approach is an ideal type of policy-making (Weiss 1979). This fits the assumptions of evidence-based policy-making that proposes the use of scientific studies in order to accurately select policy interventions in a complex environment (Frey and Ledermann 2010; Frey and Widmer 2011; Widmer 2009; Frey 2010; Sanderson 2006; Widmer and Neuenschwander 2004; Hansen and Rieper 2009). An instrumental transfer is in this ideal–typical understanding the result of evidence-based policy-making. However, instrumental transfers must not only be based on the rational model where actors learn from others and select the most efficient means. Actors can in their search also rely on a selection of sources that proved to be successful in the past, that is, use shortcuts (Weyland 2006). This does not change the factual intention. A rational learning process is therefore not a necessary condition for an instrumental transfer.

Transfers of this type end up in the legislation and are therefore not only factual but also visible. In several situations, however, the reality is different. Policy transfers can indeed exert influence, but that influence is not necessarily provided in linear and solution-oriented ways.

Type II: Conceptual transfer

In a conceptual transfer, cognitive and normative insights are gained. This does not lead, according to this type, to an adoption in a direct manner. Weiss (1979) labels this approach the *enlightenment model*. Knowledge is accumulated to think and not to act in the first place. Knowledge usually comes from more than one source. For this reason, decision makers can often not give concrete information about a clear source that has influenced the process. Rose (1993) argues in light of lesson drawing in a similar way. With his concept of *inspiration*, programs from different sources are used as intellectual stimulation to develop his own program. Learning is therefore inevitable for a conceptual transfer. In contrast to the instrumental transfer, the conceptual type will not result directly in laws or regulations. In the context of conceptual transfer, however, a different measure with the intention to achieve a similar objective can be introduced. In other words, such a type of transfer is usually not visible but nevertheless factual. Conceptual transfer ends up in latent changes that are not directly observable and therefore not manifest.

Type III: Symbolic transfer and coincidence

In a symbolic transfer, the adoption rather than the implementation of a measure stands in the center. The labeling of this transfer type is derived from Edelman's (1985) argument of the symbolic use of politics. The motive for policy-makers has consequently less to do with the impact of a measure than the symbolic demonstration. As with an instrumental transfer, a symbolic transfer is visible in the legislation. Such a transfer can thus serve different ends and can provide legitimacy in several ways. Basically, there is no central interest to learn from the experiences of others or to address existing problems. One intention can be to serve as an ex-post rationalization for existing positions that can be based on various other assumptions such as political ideology, electoral hopes, coalition expediency, or personal interests (Vedung 1997). Another example is the transfer of a measure that has no addressee in the transferring unit and therefore no consequences. Facticity is therefore not given. Similarly, the term *emulation* (Rose 1993) or *symbolic imitation* is used in diffusion research: in symbolic imitation, policies are chosen in order to legitimize actions, regardless of their consequences (Gilardi 2008). This should not be mixed with the so-called policy label diffusion (Mossberger 2000). The author assumes that the recipients of a policy fill the label with content independently. Instruments, hence, differ greatly in practice.

The most difficult type that falls into this third box is an independent adoption of a measure that similarly exists already in another unit by coincidence. Although visible, no transfer was responsible for the adoption. This can be the case when in both units, the same internal pressure is present, and policy-makers develop consequently a similar solution. An accumulation of such incidents might lead to spurious diffusion (for further discussion, see Braun and Gilardi 2006). Diffusion studies try to control for this possibility by including internal determinants. They are used as control variables in order not to overestimate diffusion effects. Nevertheless, this type of temporal coincidence is hard to figure out because classical diffusion studies usually do not observe directly the transfer processes establishing the causal link between sender and receiver of a policy innovation. Instead, they only deduce such processes.

Type IV: Negative transfer

If no adoption is visible and no borrowing of an idea can be found, no transfer has occurred. If such a situation appears, the reasons given by Evans (2009) lie in cognitive and

environmental constraints. This argument is rather vague and not thoroughly convincing. In principle, there is the opportunity that a measure does not appear on the agenda of a unit. This may be the case if no information is available from other units (van der Heiden and Strebel 2012). Or there might be no need to tackle a topic in general because of negligible or inexistent internal pressure. Consequently, no transfer happened. It is therefore not of interest for our model.

The following concept is based on the analytical framework of Bachrach and Baratz (1963) that proclaims not only to observe decisions, but also includes non-decisions in order to generate broad arguments. Whether there has been no transfer must be reviewed in every case individually. A pattern looks similar from outside when a measure does not appear on the agenda or when findings, which were transferred from another territorial unit, indicate negative consequences for its own unit. Such negative findings are transferred, but this leads to the situation that a measure is not included in the legislation. The concept is therefore called *negative transfer*. This also includes the situation where a transfer of a policy is initiated and later in the legislation process stopped due to negative experiences from other units. This was for example the case with attempted transfers of the first nuclear phase out from Germany to other countries. These attempts (e.g., in Switzerland) were in most cases invalidated with the negative experiences made in Germany. Several different actors at several stages can take responsibility for such a lack of support. Therefore, one has to go beyond the evaluation of the legislation and search in the legislative process and even in the stage of agenda-setting if a measure was discussed based on experiences from elsewhere. However, a negative transfer should not be confused with a transfer that leads to a suboptimal outcome. The outcome of a policy in a new environment is not of interest in this conceptualization of the transfer types.

Special attention has to be paid to the empirical differentiation of negative transfers and conceptual transfers. A conceptual transfer can falsely give the impression that no transfer has taken place. A thorough investigation is therefore needed to make sure that this differentiation is clearly made. It is also important to avoid the false conclusion that the knowledge of a measure on the individual level has led to a policy transfer.

If scholars simply differentiate between adoption and non-adoption, the concepts are too broadly and too narrowly drawn. It can be too broad because the distinction between facticity and non-facticity is brushed over. Adoptions can be assigned with the transfer label even if no change is aspired in practice, and therefore, only the shell is transferred. Diffusion tends to be overestimated in such a case. The conceptualization can be too narrow if invisible transfers are disregarded although ideas were transferred. Diffusion is therefore underestimated. These aspects might alter the results of diffusion studies considerably.

Research design and methods

Working with a comparative case study design including six cantons, the proposed conception is tested using three energy policy measures in the Swiss cantons.

The Swiss federal system is a particularly rich context for the study of policy diffusion. Commonly, framework laws are developed on the federal level. Tasks are specified and executed by the cantons, underlining their far-reaching responsibilities. The aim of this sub-national competence in Swiss federalism is that cantons should promote innovative problem solutions and regionally adapted implementation strategies. Cantons although part of a common regulatory framework have different legislations (Vatter 2007; Serdült and Schenkel 2007).

Horizontal exchange and cooperation between the cantons developed without the direct involvement of the federation. Because of the interdependences and influences from different levels (e.g., Federation, communities, interest groups), cantons are required to cooperate and harmonize regulations to a certain extent. Institutions play a crucial role in different forms of cooperation and coordination. Energy policy in the building sector is a typical example for this constellation (Sager 2007). Only a framework law exists on the federal level (Energy Law 1998, EnG) that outlines, among others, the responsibilities of the cantons in the field. They include economic energy use and renewable energies in the building sector. Thus, no clearly outlined tasks are formulated. This field is clearly dominated by the concept of sovereignty of the cantons. Following the EnG, when it comes to renewable energies and the rational use of energy in the building sector, the national government only has the instruments of information and financial support at its disposal. In addition to that, the policy field is highly topical in terms of discussions about the future use of atomic energy and the possibility of peak oil.

The following three measures that target energetic aspects of buildings were chosen, and the transfer processes in six cantons were traced. The three selected measures are all parts of the model regulations (MuKEn 2000) that were introduced in 2000 by the Inter-cantonal Conference of Energy-Directors (EnDK). The MuKEn 2000 contain altogether 10 measures. For this study, the measures are chosen for different reasons. They were so far not mentioned in any federal or inter-cantonal agreement, and they were all introduced in at least 12 out of 26 cantons.[1] This is crucial for the test of our model since a conceptual transfer is only possible if the conceptualization of a measure allows adaptations. For strict bans, for example, this scope is rarely given. All the measures under scrutiny allow some variation. The aims of the three measures, however, clearly differ.

1. The *minimum requirement* measure includes maximal limits for the use of non-renewable energies in newly constructed buildings. It demands that not more than 80 % of the permissible energy used for heating and hot water may be achieved with non-renewable energies.
2. According to the *large consumer* measure, consumers with a certain amount of energy consumption could be obliged to fix overall consumption targets. In return, other regulations from the cantonal energy law can be exempted.
3. The measure of *electric energy* consumption of large-scale consumers is chosen as the third measure and focuses on larger buildings that do not serve as residence. The goal of this measure is that buildings for services, commercial or public purposes consume less electricity for lightening, ventilation, and cooling.

The processes behind adoptions were traced in the following six Swiss cantons: Baselland, Neuchâtel, Obwalden, Thurgau, Uri, and Valais. The selection is based first on the findings from a quantitative census of the adoption of these measures in the Swiss cantons (Strebel 2012). Second, factors such as size, language region (Italian-, French-, and German-speaking), and cantonal implementation structure were taken into account for a most different systems design (George and Bennett 2005).

With a systematic case study protocol including all possible characteristics of the transfer types, various information was gathered from the transfer processes in the selected cases. The case study protocol is elementary for the clear measurement of the variables. On the basis of various documents such as official publications, consultation reports,

[1] For further information on the case selection, see Strebel (2012).

secondary literature, and interviews, the transfer processes were reconstructed in order to attribute the cases to the categories.

Officials from the cantons and the Federation as well as representatives of interest groups were interviewed between March 2011 and June 2010. This information is now discussed in light of the above proposed concepts. This qualitative-oriented approach helps to specify concrete transfers and open the black box of diffusion. In order to generate broader statements, we search for an explanation of the transfer types in the processes.

Types of energy policy transfers

Evidence from Switzerland

Whether policy transfers in the field of energy policy, as generally assumed, are of instrumental nature is discussed in this section. The 18 cases are characterized differently. Listed by type, Table 2 shows an overview of the different transfers in the cantons. Since the focus of this paper is set on the theoretical argument, the results are presented on the basis of some typical cases to illustrate the transfer types that stand in the center of this paper.[2] The explanation begins with the illustration of instrumental transfers, followed by conceptual and symbolic transfers as well as possible coincidentally adoption. Finally, negative transfers are discussed.

Table 2 shows that eight out of 18 possible transfers have an instrumental character. The EnG from the year 1998 was the catalyst for the drafting of new legislation in Neuchâtel. The formulation of this legislation coincided with the development of the MuKEn. The responsible official from Neuchâtel held the chair of the working group in charge of these model regulations. With the aim to reduce the energy consumption and to support the national harmonization of cantonal legislations, Neuchâtel's cantonal administration was looking for suitable measures for its draft legislation. All these aspects point to the concept of instrumental transfers.

Baselland did not include the two measures "Minimum requirement" and "Large consumer" in its legislation. However, the idea of the measure "Minimum requirement" was extensively discussed with neighboring Basel-Stadt. The same measure was not adopted in the two cantons. The idea was to introduce a slightly different measure but with the same aim of reducing the energy consumption in new buildings by about 20 %. The transfer is not clearly visible but is nevertheless factual. Consequently, one can speak of a conceptual transfer. For the inspiration, various sources were decisive.

The adoption of the measure "Large consumer" in Uri reveals a different picture. The measure was introduced in the cantonal legislation in light of the MuKEn 2000. Since the industry and trade in Uri is of small scale, no consumers were affected by this measure. The law was consequently never applied in practice. Although visible, the transfer, therefore, did not take place in instrumental terms. This approach makes clear that the motive behind the adoption of this measure was to obtain legitimacy in the field energy policy. This transfer can therefore be labeled as symbolic.

Although no visible transfer happened, the cantons are still exposed to the communication in the inter-cantonal conferences, and the proposed solutions were therefore known in all cantons to some degree. Coincidental adoptions can therefore be excluded. In Valais, the measure "Minimum requirement" was not transferred because of strong criticism from

[2] The assignment of the remaining cases is discussed in Strebel (2012).

Table 2 Transfer type by canton

	Transfer			Negative transfer
	Instrumental	Symbolic	Conceptual	
Baselland			Min. requirement	
	Electric energy			
				Large consumer
Neuchâtel	Min. requirement			
	Electric energy			
	Large consumer			
Obwalden				Min. requirement
				Electric energy
				Large consumer
Thurgau	Min. requirement			
	Electric energy			
		Large consumer		
Uri	Min. requirement			
	Electric energy			
		Large consumer		
Valais				Min. requirement
		Electric energy		
				Large consumer

various associations and communities during the consultation process of a first proposal prepared by the cantonal energy office. The measure was thereafter not included in the final proposal of the government to the cantonal parliament. In the other cases where no transfer took place, it was considered that the respective measure was not suitable for various reasons for the individual canton. Usually, the cantonal energy office believed that the implementation costs of a measure were proportionally inadequate considering its impact. Since the measures were in these six cases known to some degree in all cantons, one can speak of *negative transfers*. In none of the six cantons discussed here, no one from the parliament, interest groups, or the people explicitly asked for one of these measures. It is therefore a necessary condition that the cantonal energy office classifies a measure appropriate for their own canton in order to incorporate it in the legislation or bring it to discussion.

In summary, about half of the investigated transfers prove to be instrumental. A conceptual transfer took place in only one case. In three cases, the decision was less based on the impact of the measure than it was on the symbolic effect of the transfer. In the remaining third of the cases, no transfers took place although the measures were known in the respective cantons to some degree because of extensive communication and coordination in this policy field.

In search of an explanation

To search for factors that explain the different transfer types, the processes behind the transfers were looked at in detail. The degree of autonomy in the processes proved to have

Table 3 Transfer types and processes

	Transfer			Negative transfer
	Instrumental	Symbolic	Conceptual	
Coercive process				
Semi-autonomous process	*Thurgau* Min. requirement Electric energy *Uri* Min. requirement Electric energy	*Thurgau* Large consumer *Uri* Large consumer *Valais* Electric energy		*Obwalden* Min. requirement Electric energy Large consumer *Valais* Min. requirement Large consumer
Autonomous process	*Baselland* Electric energy *Neuchâtel* Min. requirement Electric energy Large consumer		*Baselland* Min. requirement	*Baselland* Large consumer

a systematic effect on the different transfer types. Before discussing these effects that lead to the hypothesis, the gradations of autonomy are outlined.

Processes are either based on full autonomy on coercion or on a mixed form of coercion and autonomy. If decision makers are unhappy with the status quo, they search autonomously for alternatives. The search relies on the evaluation of current measures in other units or on programs from the past (see also lesson drawing in Rose 1993). Ideally, they scan for measures on all possible channels and use all available exchange platforms. The opposite concept is coercion, where similar reforms are adopted in different systems because of vertical or horizontal pressure. Such a pressure is generally exerted by a dominant unit or an influential institution. The conditions for coercion are different power asymmetries, ranging from enforcement to gentle pressure (see Simmons et al. 2006). While in autonomous processes, policy-makers are driven by their own initiative, coercion underlies domination by outside interests. However, a hybrid between the two concepts is also possible. In such a semi-autonomous process, the policy-makers have the feeling of the inevitability set by measures from the outside that are seen as standard. Table 3 brings together the dimension of autonomy and the transfer types.

The case studies reveal that neither horizontal nor vertical coercion was responsible for a transfer of a measure in any case. As stated in the Federal Constitution and the 1998-enacted EnG, it is in principle up to the cantons how they concretely shape the energy policy in the building sector. All examined transfers are based on an autonomous or on a semi-autonomous process. The autonomous search for solutions or the development of innovative solutions in order to solve a problem needs solid equipping of the cantonal office for energy by politicians. Although the cantons are not bound to any restrictions by the federal regulations, and no coercion was found in these cases they often, however, do not act entirely independently from other cantons or certain institutions. The influence of these institutions varies. Some cantons felt pressure to transfer a measure in order to ensure that the state of the technical standard was maintained. This points to a semi-autonomous

process. Action is in fact based on cantons' voluntary decisions; however, the feeling of an obligation was prevailing. In several cases, such an action should prevent the canton from falling behind regarding building standards. Policy-making was in two cases rather based on an autonomous process. Because of the introduction of a new cantonal energy law or the revision of an existing energy law, cantons looked for suitable measures in other cantons or in the MuKEn 2000 launched by the EnDK. The MuKEn 2000 are relevant in this context, as they were intended as a guide for cantonal legislation. In most cases, the cantons did not consider all channels for possible solutions. A rather limited scope led to their view on the channels, which already provided solutions in the past. Detailed cost-effectiveness and cost-benefit analyses have hardly taken place. The approach therefore corresponds to bounded rationality (Weyland 2006).

The impact of autonomy on the transfer type

Looking at the effects of autonomy on the different transfer types as mentioned earlier, it appears that autonomous processes tend to factual transfers or, in other words, to instrumental as well as conceptual transfers (see Table 3). In the context of an autonomous process, in one case, a measure was developed independently. In only one case, an autonomous process was followed by a negative transfer. Here, the relevant energy office determined, after an in-depth assessment of the measure, that a transfer was not appropriate for its canton.

Where semi-autonomous processes were responsible for transfers, they were of instrumental or symbolic character. However, semi-autonomous processes have not always led to a transfer. Striking is that semi-autonomous processes might lead to symbolic transfers. In these cases, no change is foreseen although the measure is adopted in the legislation. In these cases, the cantons contribute only on paper to the harmonization. Considering the negative transfer in semi-autonomous processes more closely, these cantons were indeed exposed to communication but did not reach the level of support for a transfer internally. The measure was classified as inappropriate for their own canton.

These findings lead to the hypothesis that autonomous processes lead to factual transfers while semi-autonomous processes lead to both factual and non-factual transfers.

Conclusion

The findings show that in the case of Swiss sub-national energy policy, transfers are by no means always visible as in general implicitly assumed in the diffusion literature. The empirical evidence that is presented here indicates that diffusion research misconceives instances of transfer and negative transfer because of its binary orientation. This paper shows that some cases (conceptual transfers) will be excluded if one only considers clearly visible adoptions. This is for example the case in the quantitative analysis on diffusion of energy policy in the Swiss canton (Strebel 2011). This leads to an underestimation of the diffusion effect in such studies. Taking the aspect of facticity into account that is not addressed in diffusion studies, visible transfers are not always factual. Looking at the concept of facticity, it is not relevant whether a measure is exactly copied or just the idea is adopted. This means that in some cases, only the shell of a measure is transferred. Disregarding the factual dimension and treating symbolic and instrumental transfers identically, the diffusion effect is overestimated. In eight out of the 18 examined cases, the transfers are of instrumental character. Three transfers are symbolic, one conceptual, and

six cases can be labeled as negative transfers. According to these findings, this paper postulates a more differentiated understanding of policy diffusion in order not to display a biased picture.

As discussed, the transfers studied in the field of cantonal energy policy are all based on autonomous and semi-autonomous processes. Neither horizontal nor vertical coercive processes were responsible for a transfer of a measure in any case since the cantons enjoy extensive freedom in this policy field. In autonomous processes, a search usually takes place through an evaluation of measures from other cantons. The inter-cantonal cooperation and the resulting MuKEn represent a broad agreement of the cantonal directors and display the state of the art. The cantons therefore do not only use this source when they create or update their energy legislation. On the contrary, the enactment of the MuKEn created a point of reference and soft pressure for the cantonal energy offices that drafted the legislations. Based on the findings of the case studies, this paper postulated the hypothesis that autonomous processes lead to factual transfers while semi-autonomous processes lead to both factual and non-factual transfers. This theoretical contribution indicates when to expect which type of policy transfer.

To recognize the different types and provide additional information to the nominal adoption, an in-depth investigation for each case would be needed. For large-N studies, this is, depending on the number of cases, very difficult or even impossible. For quantitative research on policy diffusion and interdependent policy-making in general, this means that taking the degree of institutionalization and autonomy in a policy field systematically into consideration, this would enable the indication of a trend of under- or overestimation. Diffusion in policy fields with strongly institutionalized platforms of exchange is rather overestimated. The same situation can be found when some units clearly set standards and act as role models for the others. If the units act more autonomously, an increased occurrence of conceptual transfers can be expected. In a policy field where strong institutions and role models are missing, the units act more independently, and diffusion might therefore be underestimated. To what extent the diffusion mechanisms have an impact on the different transfer types was not in the focus of this study. In order to close the circle to this actual discussion of policy diffusion, further research is needed. Additionally, one has to take into account the degree, a measure allows for adjustments. The measures studies in this paper enabled the cantons to adopt them in adapted forms. This allowed, on the one hand, for conceptual transfers. On the other hand, the high complexity and the low-politicized nature of the measures bring the potential for symbolic transfers. This aspect as well as other internal determinants such as the pressure to act requests further research in order to strengthen the argument delivered with this paper.

Empirical evidence was gathered for one policy field and for the setting of the Swiss cantons. The Swiss cantons share several similarities that might facilitate. Nevertheless, it is assumed that the general findings and the proposed hypothesis are more broadly applicable than just to the field of energy policy in the building sector in Switzerland. This is especially the case since the findings do not address aspects such as speed or the degree of diffusion. Crucial is the situation where the units, whether sub-national units or countries, enjoy the freedom to create their legislation according to their own will. Sub-national Swiss energy policy is therefore a typical case. However, the hypothesis is also applicable in policy fields where the units have only an executive function of clearly specified tasks. In such a setting, more symbolic transfers can be expected. In the international environment, such situations can be found for example in the structure of the EU, where members voluntarily introduce programs only for symbolic reasons such as the case of regulatory impact assessments (Radaelli and De Francesco (2007).

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